

XXXII. *Note on the Memoir printed at Page 249 of the present Volume.*

By JOHN CURTIS, Esq., F.L.S. &amp;c. &amp;c.

Read January 21st, 1845.

SINCE my Paper upon the economy of the *Dielocerus Ellisii* was laid before the Linnean Society, some materials have accidentally fallen in my way, which appear to throw light upon the curious habits of that insect.

Last autumn I had a cocoon of the Emperor moth (*Saturnia Pavonia-minor*) transmitted to me, infested by a parasite: the cocoon being divided longitudinally, instead of the chrysalis, a series of cells (fig. 1.) was discovered, so analogous to those represented in the present volume (TAB. XXXI. fig. 5.), that I think a doubt can no longer exist that the woolly masses there exhibited (figs. 3, 4, 5.) are the cocoons of some large South American *Bombyx*, and that the substance of the caterpillar has been converted into cells by the larvæ of the Tenthredinous insect. Although this will set aside the theory of their having manufactured the nest, a still greater anomaly in their economy presents itself, that of a saw-fly being parasitic.

One side of the cocoon sent to me last autumn was occupied by hexagonal and irregularly-sided cells (fig. 1, *b*), but on the other they were nearly choked with the wool (fig. 1, *c*): from this it may be inferred that it is the fat on which the parasites subsist, leaving uninjured the vessels and secretions which supply the caterpillars of moths with silken materials for their cocoons; and at the same time there is strong evidence that it is this woolly substance, combined with liquid secretions at the command of the parasitic larvæ, of which the cells are formed, and that the quantity of woolly material remaining was a surplus unrequired by the larvæ.

The contents of the cocoon and cells have been subjected to the most rigid scrutiny, but I cannot find a vestige of any perfect insect to indicate the genus of this newly-discovered parasite. I detected, however, a dried and broken

maggot (fig. 2.), which I joined together, and certainly there are no indications of its being the larva of a *Tenthredo*; the head is not large enough, and I could not discover any feet, not even the pectoral. It is therefore more likely to be a larva of the family *Ichneumonidæ*. Great numbers of the curious spines which clothe the caterpillar of *Saturnia Pavonia-minor* fell out of the cocoon, as well as atoms of exuviae apparently; but I conjecture, from their imperfect state, that they had remained for many months exposed to the changes of the seasons.

The cells most analogous to these are some formed by the *Microgaster alvearius* (Curtis's Brit. Ent. fol. & pl. 321), which are as regular as a honeycomb; and I find from the following notice, that the pupæ of the Eggarmoths are similarly infested. At a meeting of the Entomological Society, Dr. Calvert "exhibited a cocoon, apparently of one of the Eggarmoths, the interior of which was occupied by a great number of the minute cocoons of one of the *Ichneumonides adsciti* closely arranged with great regularity." (Ent. Trans. vol. iii. p. xxxv.)

Hayes, near Uxbridge, December 6, 1844.

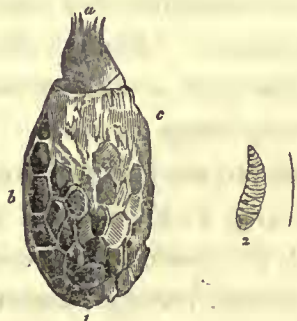


Fig. 1. Longitudinal section of the cocoon. *a.* Its ciliated end. *b.* The side of the cells.  
*c.* The woolly portion.

Fig. 2. A dead larva in one of the cells, which was cut or broken into three portions.